

Michigan Senate Committee on Transportation and Infrastructure



**Presentation by:
Dorothy Ruohonen - CEO
Jay Ruohonen – President**

November 5, 2013



Talon Research, Inc. – Hancock, MI

Dorothy Ruohonen – CEO, Owner

Jay Ruohonen – President

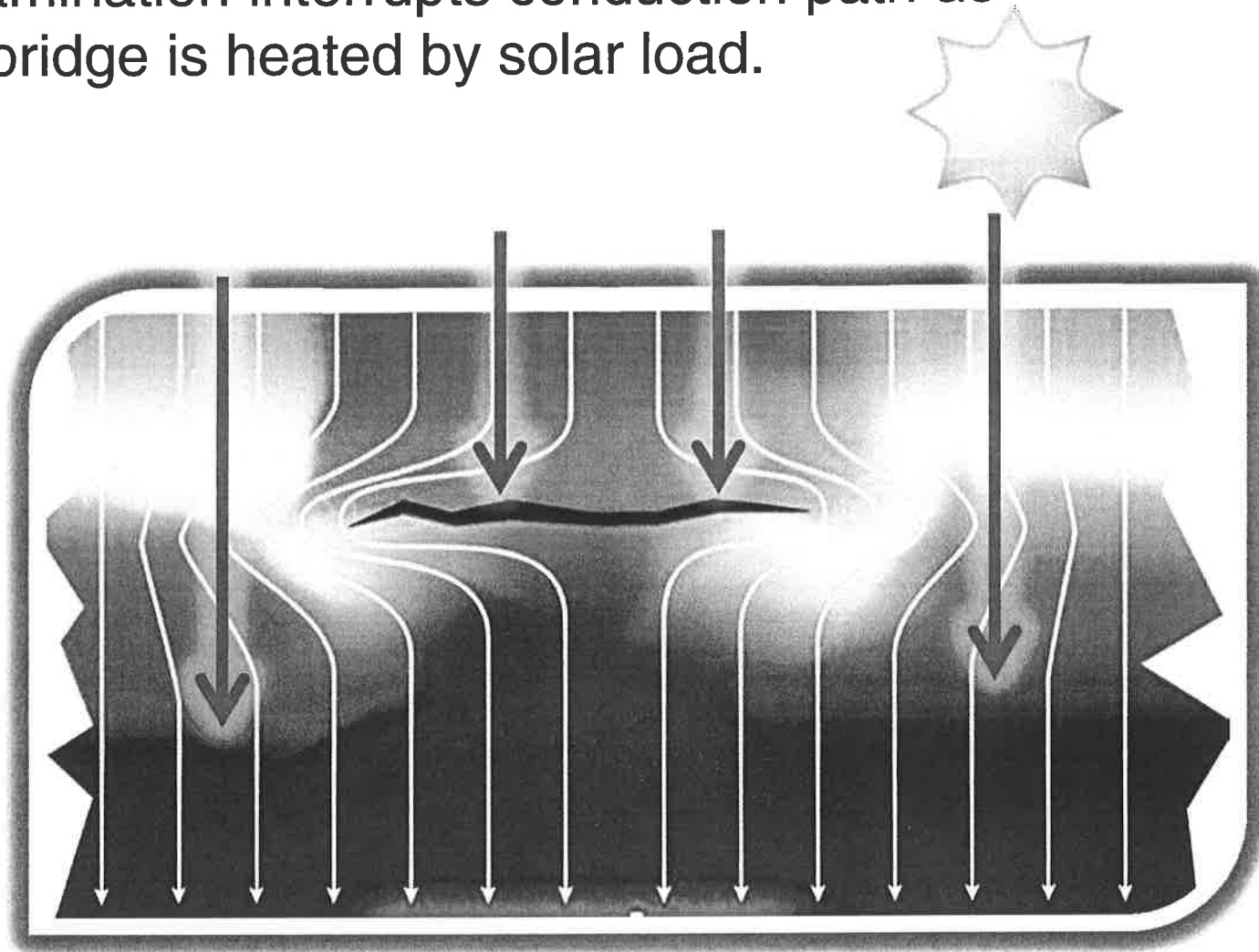
- Two Divisions
 - Hawk Technologies – Mechanical, Electrical, Civil CAD platforms -1987
 - BridgeGuard – Proprietary Infrared Software Suite - 2009

WOSB - HUBZone – SmartZone

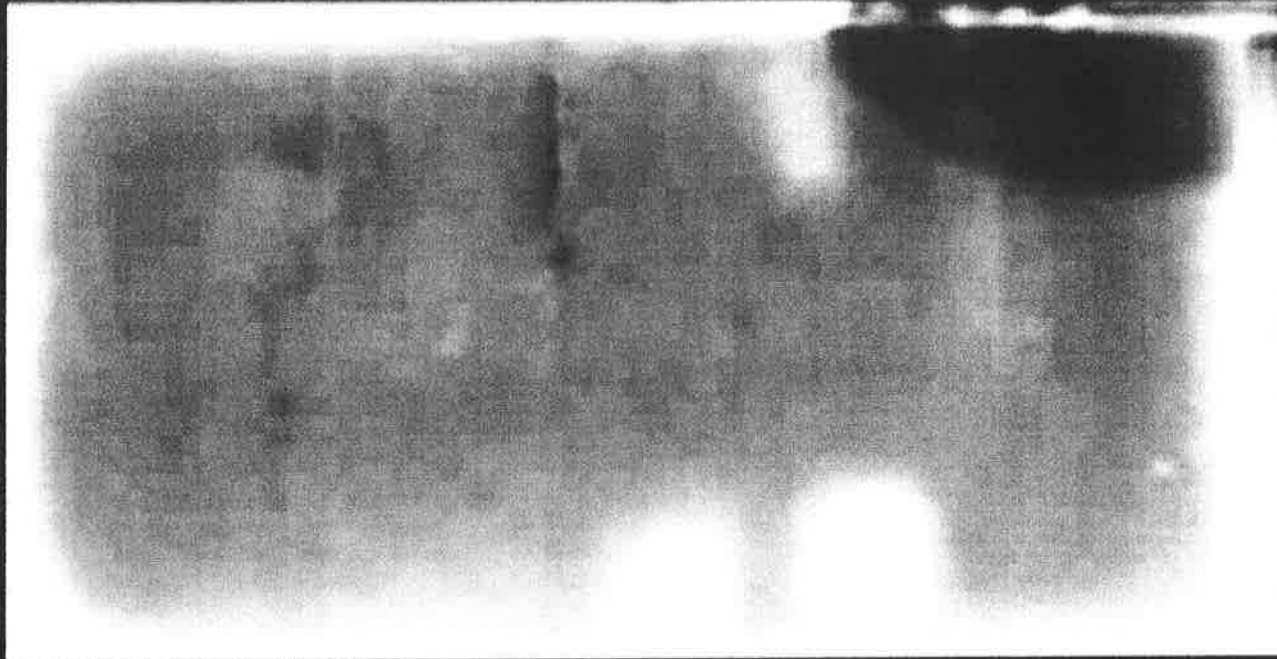


Thermal Principle

Delamination interrupts conduction path as the bridge is heated by solar load.



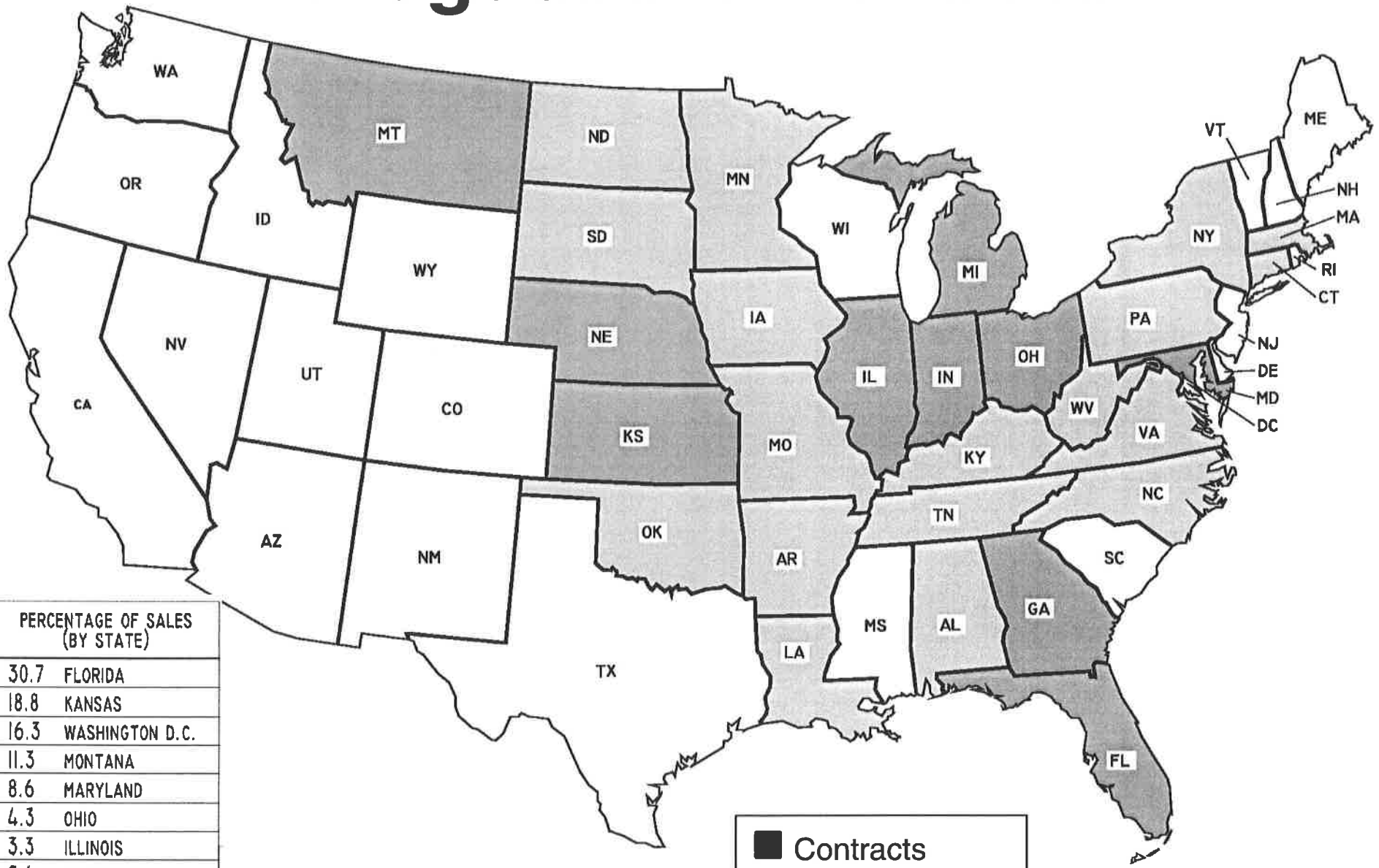
Diurnal Video



2:30 PM

Infrared Detection of Delaminations

BridgeGuard Presence



PERCENTAGE OF SALES (BY STATE)

30.7	FLORIDA
18.8	KANSAS
16.3	WASHINGTON D.C.
11.3	MONTANA
8.6	MARYLAND
4.3	OHIO
3.3	ILLINOIS
2.4	INDIANA
2.3	MICHIGAN
2.0	NEBRASKA

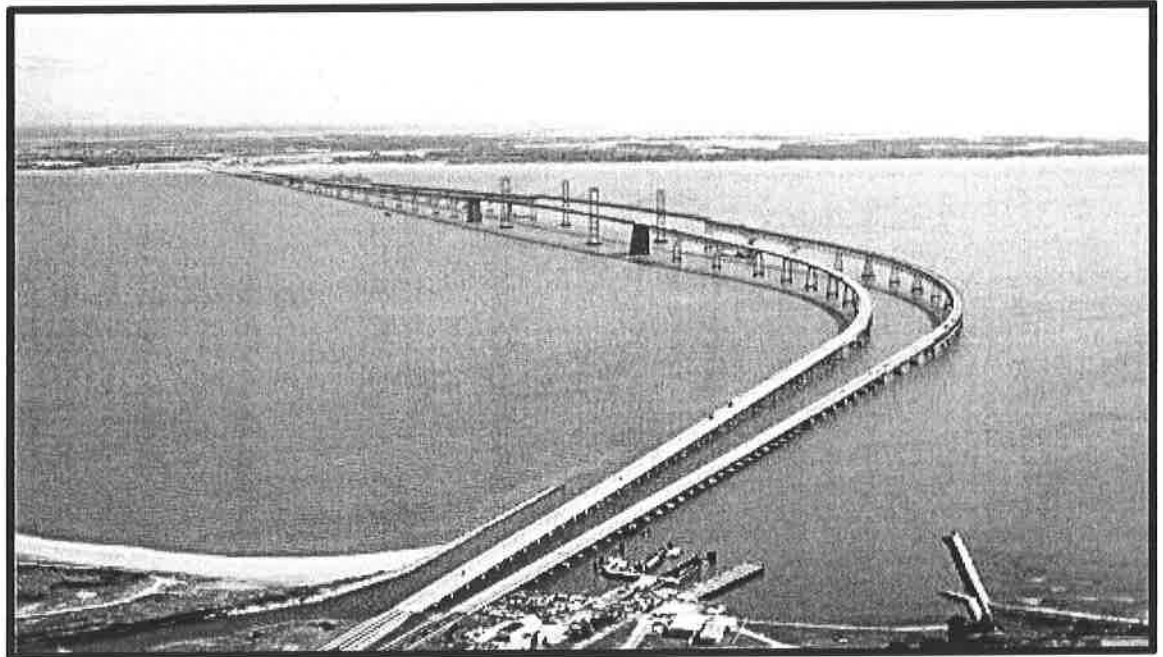


Contracts



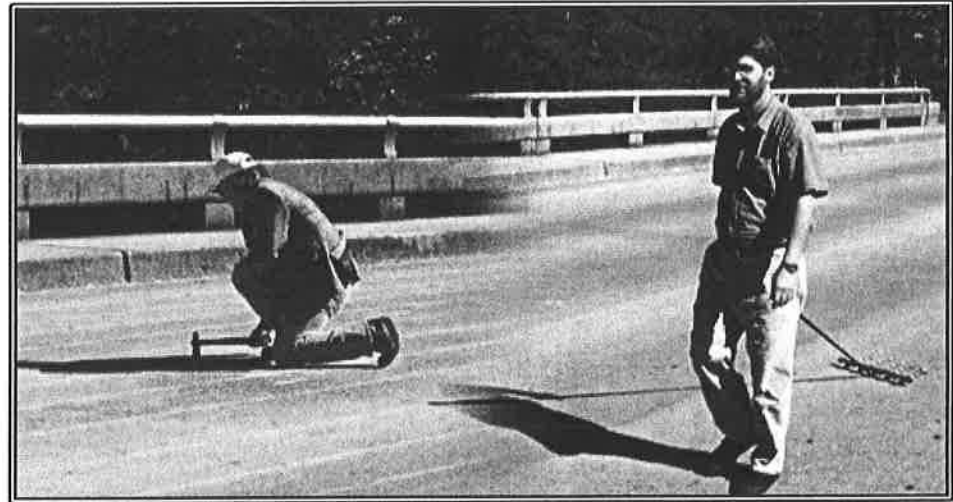
Demonstrations

Chesapeake Bay
Bay Bridge, MD, 4.5 miles long-
Eastbound
628,000+ sf



Miami, FL, Corridor of bridges,
deck/sub
28,000+ sf

Hammer Sounding & Chain Drag



Delays cost Money!



FHWA - Road User Costs (RUC)



Scanning at Highway Speeds Video

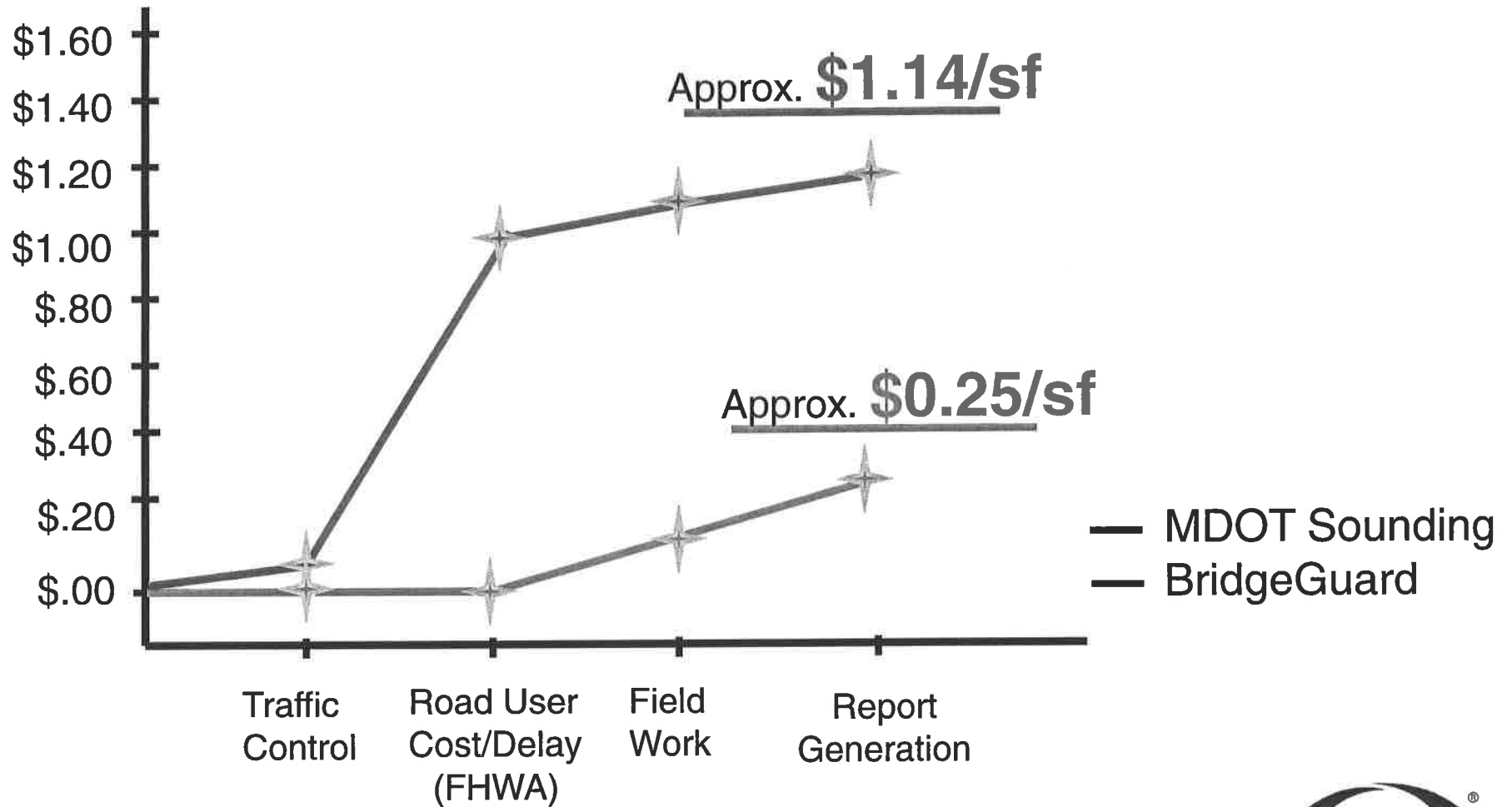


I-96 Over Kensington Lake Road Milford Township



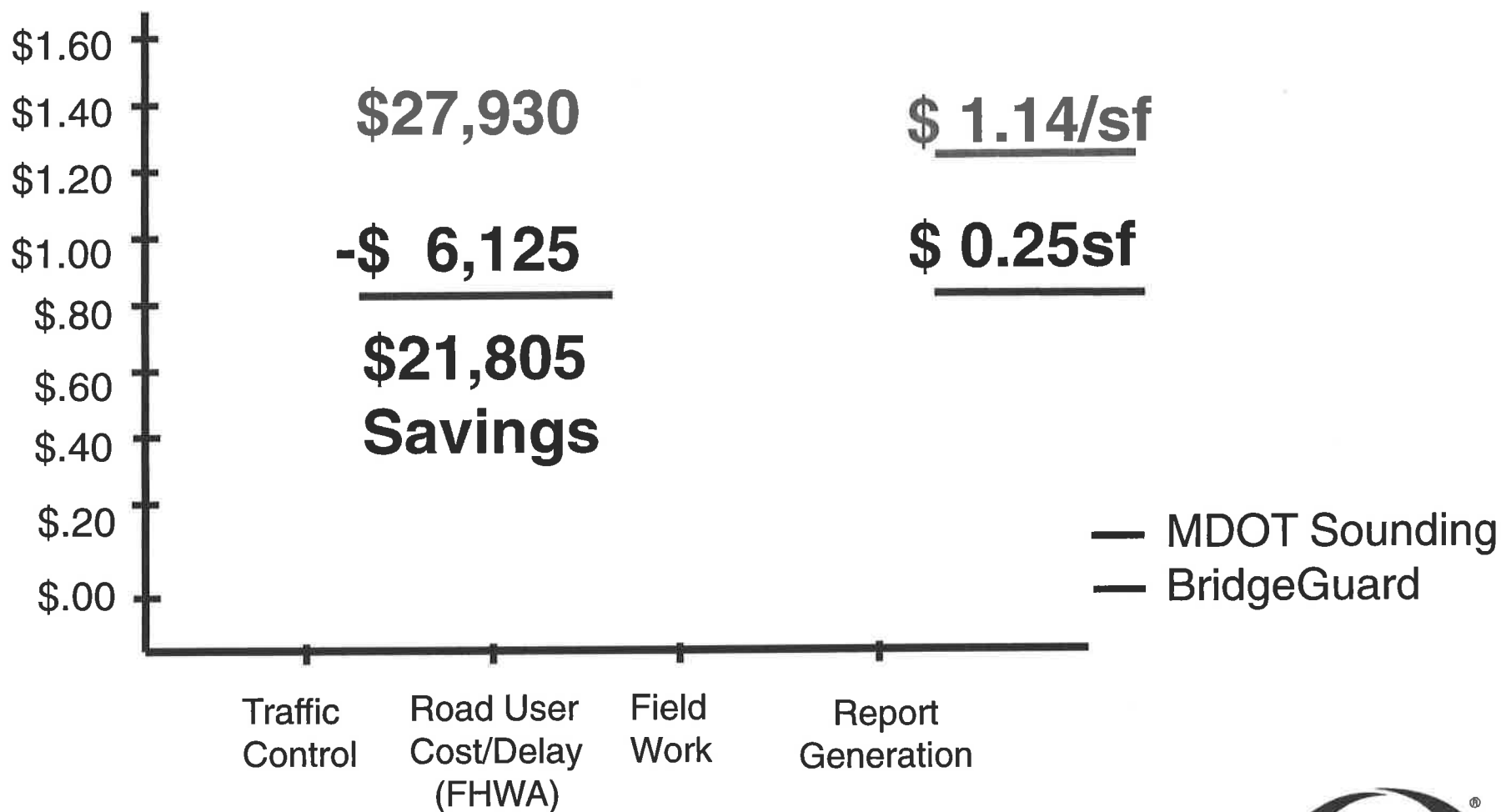
Cost Comparison \$/sf

I-96 over Kensington Lake Road, Oakland County, approx. 175' long = 24,500 total sf
Average Daily Traffic = 99,450 cars per day



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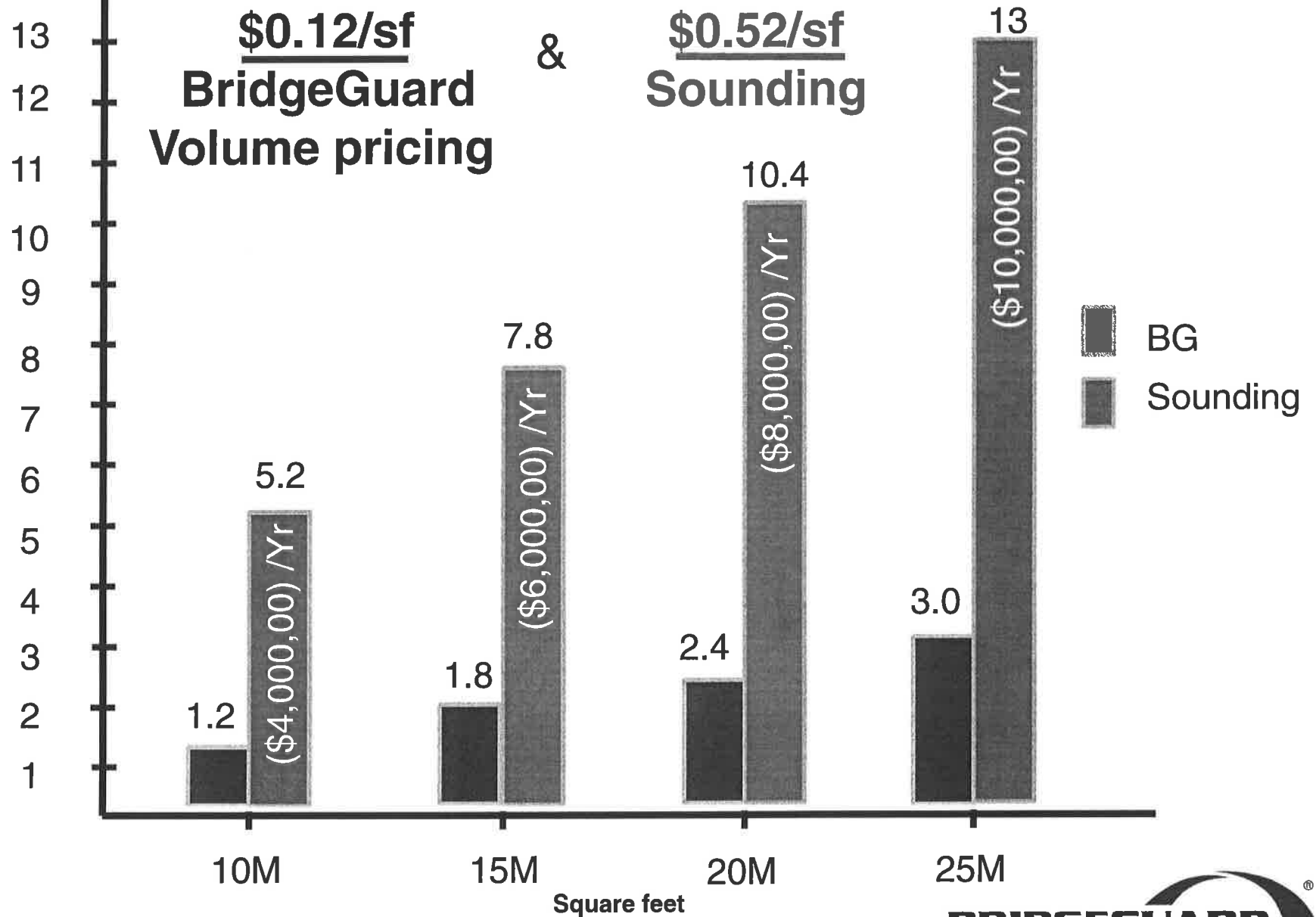


Michigan's State Trunkline Bridges

- MI House Fiscal Agency 2013 Report
 - State Trunkline 4,406 40.3% of bridges
 - Approximately 50,000,000 square feet of deck
 - 74.2% of the states total bridge deck area
 - Carries 81% of daily traffic

Michigan Trunkline Bridges

Millions
Of \$



BRIDGEGUARD®

****BridgeGuard Benefits****

Faster, Cheaper, Safer, Smarter, Innovative

- Accurate & repeatable locating of delaminations & cracks
- No lane closures (50+ mph)
- No Road User Costs
- No safety concern/risk for MDOT personnel
- Save taxpayer money \$\$\$
- Far exceeds existing 1986 ASNT standard
- Deliverable in a CAD format (MicroStation or AutoCAD)
- Industry proven and accepted technology
- Exporting to Canada in 2014 – bringing outside \$ into Michigan

Made In Michigan
Creating Michigan Jobs!



Jobs for Michigan!

Talon Research Statistics

2011 payroll.....\$350,000 7 employees

2012 payroll.....\$500,000 10 employees

2013 payroll.....\$700,000 16 employees

2014 payroll.....\$1,100,000 25 employees?

How do we move forward from here?

**BridgeGuard proposes a
2 year bridge scoping contract
to scan and provide detailed
CAD reports on all 4,406
State trunkline bridges
(2,203/year per FHWA)**

**Michigan
can be the leader in innovative infrastructure technologies!**



Thank You!



www.bridgeguard.net

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